

CLAIMS

1. A screw pump comprising a chamber defining with first and second externally threaded rotors mounted on respective shafts and adapted for counter-rotation within the chamber a plurality of flow paths having respective fluid inlets.
2. A screw pump according to Claim 1, wherein the inlets are located towards or at a common low pressure side of the chamber, and a fluid outlet is located towards or at a common high pressure side of the chamber.
3. A screw pump according to Claim 1 or Claim 2, wherein the inlets are formed in a common surface defining the chamber.
4. A screw pump according to any preceding claim, wherein the inlets are located on a common plane.
5. A screw pump according to any preceding claim, wherein the flow paths merge at a fluid outlet of the chamber.
6. A screw pump according to any preceding claim, wherein the flow paths are arranged such that fluid flows along the flow paths in substantially the same direction.
7. A screw pump according to any preceding claim, wherein a first flow path is defined between the internal surface of the chamber and the external surface of the first rotor, and a second flow path is defined between the internal surface of the chamber and the external surface of the second rotor.

8. A screw pump according to any preceding claim, wherein the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets.
- 5 9. A screw pump according to any preceding claim, comprising a pump body defining said chamber, said body having first and second opposing plates, and wherein the fluid inlets are formed in the first plate and a fluid outlet is formed in the second plate.
- 10 10. A pumping arrangement comprising a screw pump according to any preceding claim, a first pumping unit having an exhaust connected to a first inlet of the screw pump and a second pumping unit having an exhaust connected to a second inlet of the screw pump.
- 15 11. A pumping arrangement comprising:
a screw pump, the screw pump comprising a body defining a chamber housing first and second externally threaded rotors mounted on respective shafts and adapted for counter-rotation within the chamber, the rotors defining with the body first and second flow
20 paths passing through the chamber, each flow path having a respective fluid inlet located in said body;
a first pumping unit having an exhaust connected to the fluid inlet of the first flow path of the screw pump; and
a second pumping unit having an exhaust connected to the
25 fluid inlet of the second flow path of the screw pump.
12. A pumping arrangement according to Claim 11, wherein the inlets are located towards or at a common low pressure side of the chamber, and a fluid outlet is located towards or at a common high
30 pressure side of the chamber.

13. A pumping arrangement according to Claim 11 or Claim 12, wherein the inlets are formed in a common surface of the body.

14. A pumping arrangement according to any of Claims 11 to 13,
5 wherein the inlets are located on a common plane.

15. A pumping arrangement according to any of Claims 11 to 14, wherein the flow paths merge at a fluid outlet of the chamber.

10 16. A pumping arrangement according to any of Claims 11 to 15, wherein the flow paths are arranged such that fluid flows along the flow paths in substantially the same direction.

15 17. A pumping arrangement according to any of Claims 11 to 16, wherein a first flow path is defined between the body and the external surface of the first rotor, and a second flow path is defined between the body and the external surface of the second rotor.

20 18. A pumping arrangement according to any of Claims 11 to 17, wherein the pressure at one of the inlets during pumping is higher than the pressure at another of the inlets.